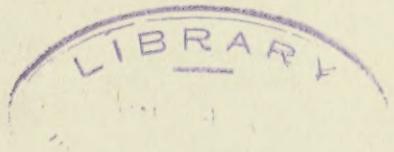
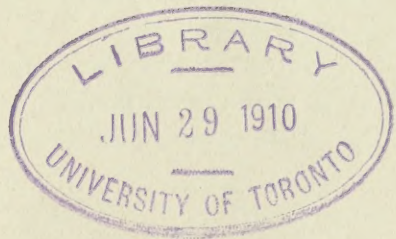


AMERICAN MINING CONGRESS



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JUNE, 1910



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American Mining Congress

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STANDING COMMITTEES FOR THE YEAR 1910

At each annual session of the American Mining Congress the principal part of its work for the ensuing year is outlined by resolutions adopted by vote of the delegates. The performance of this work calls for the appointment of a number of standing committees, the members of which are all selected with the idea of securing those best qualified to serve.

These committees prosecute their work between sessions and render reports of their transactions or conclusions at the first ensuing annual session. As a means of facilitating their work the Monthly Bulletin is designed to serve as a medium for the presentation of ideas from the membership generally upon topics in which particular interest is felt. The columns of the Bulletin are open to the committees and the membership for the discussion of any subject relating to mining, and all communications from members should be sent to the Secretary of the Mining Congress, who will direct same to the proper committee in case they are not intended for publication.

Below are the standing committees for the year 1910:

GENERAL REVISION OF MINERAL LAND LAWS.

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J. H. RICHARDS, Boise, Idaho. D. W. BRUNTON, Denver, Colo.

UNIFORM MINING LAWS.

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ALASKAN MINING LAWS.

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M. D. LEEHEY, Seattle, Wash. J. L. STEELE, Seattle, Wash.

COAL TAX INSURANCE FUND.

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DAVID ROSS, Springfield, Ills.

W. R. WOODFORD, Pittsburg, Pa.

J. W. DAWSON, Charleston, W. Va.

THOS. L. LEWIS, Indianapolis, Ind.

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In Coal Mines—

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J. R. BENT, Oglesby, Ills.

G. A. SCHREIER, Divernon, Ills.

HARRY M. WARREN, Scranton, Pa.

GEO. T. WATSON, Fairmont, W. Va.,

GEO. R. WOOD, Pittsburg, Pa.

W. A. THOMAS, Pittsburg, Pa.

In Metal Mines—

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HERBERT S. SANDS, Denver, Colo.

CHAS. A. CHASE, Denver, Colo.

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THE SECRETARY, Chairman.

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JOHN McFAYDEN, Indianapolis, Ind.

E. T. BENT, Chicago, Ill.

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E. H. BENJAMIN, Oakland, Calif.

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USING COUNTRIES.

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T. J. VEST, Galena, Kans.

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PROGRAM.

J. F. CALLBREATH, Denver, Colo., Chairman.

E. A. MONTGOMERY, Los Angeles, Cal.

DR. W. B. PHILLIPS, Austin, Tex.

CHANGE OF ADDRESS

Members will please notify the Secretary promptly upon change of postoffice address. This will facilitate regular delivery of the Monthly Bulletin and other pamphlets, and will avoid much annoying work in our mailing department. As is noted on the first page of this issue, the Monthly Bulletin has been admitted to the privilege of second-class mailing in the postoffice.

ADDRESSES WANTED

Mail directed to the following members has been returned unclaimed and we would be glad to receive information as to their present respective addresses. Other members will confer a favor by notifying us, in case the information is at hand.

NAME.	LAST ADDRESS GIVEN.
Alsdorf, F. C.....	Sodaville, Nev.
Aylesworth, A. J.....	Goldfield, Nev.
Blockberger, F. R.....	Portland, Ore.
Bedell, S. A.....	Fenner, Cal.
Boyrie, H. E.....	428 N. Y. Blk., Seattle, Wash.
Cardwell, B. A.....	354 Arcade Annex, Seattle, Wash.
Davis, Jack.....	Goldfield, Nev.
Dahl, Henry P.....	Cripple Creek, Colo.
Downing, Chas. S.....	520 Commonwealth Building, Denver, Colo.
Ferguson, N. E.....	2940 Howard Blvd., Los Angeles, Cal.
Fredericks, L. G.....	Buffalo, Ark.
Hutton, James.....	Waukesha, Wis.
Ish, Marvin E.....	Box 58, Goldfield, Nev.
Kennedy, Jno. F.....	12-13 P. I. Bldg., Seattle, Wash.
Kennedy, S. D.....	Reno, Nev.
Knowles, W. A.....	55 Temple Blk., Los Angeles, Cal.
McCarthy, James J.....	Box 622, Goldfield, Nev.
McDonald, J. R.....	Rhyolite, Nev.
McMullan, Jno.....	Goldfield, Nev.
Miller, David.....	Box 14, South Bend, Ind.
Miller, W. A.....	17 Bank Blk., Denver, Colo.
Mullen, R. G.....	Orogrande, N. M.
Newsander, Sam.....	607 Jamison Blk., Spokane, Wash.
Phillips, S. B.....	Sandpoint, Idaho.
Power, Christy & Co.....	Goldfield, Nev.
Remington, W. H.....	228 Epler Blk., Seattle, Wash.
Ridge, W. R.....	Reno, Nev.
Roberts, Wm.....	Shultz, via Tucson, Ariz.
Samuel, R. L.....	Cananea, Sonora, Mex.
Tate, John H.....	Goldfield, Nev.
Timothy, Thos.....	Baxter Springs, Kansas.
Welsford, J. V.....	Cuba City, Wis.
Woodson, Frank A.....	Globe, Ariz.
Worthen, B. L.....	Shirley Hotel, Denver, Colo.

PROCEEDINGS WANTED

This office has made repeated efforts to secure copies of the Annual Proceedings of the first five sessions of the American Mining Congress, but without success. These reports cover the sessions in Denver in 1897, Salt Lake City in 1898, Milwaukee in 1900, Boise, Idaho, in 1901, and Butte in 1902.

Members who have copies of any of these reports, or who can advise where they may possibly be obtained, will confer a great favor by communicating with this office.

MEMBERSHIP

During the month of May, 1910, the following persons were upon application duly elected to membership in the American Mining Congress:

GEORGE ATKINSON.....	Cottage, Grove, Ore.
G. G. WARNER.....	Cottage, Grove, Ore.
HERBERT S. SANDS.....	429 17th St., Denver, Colo.
F. A. LOSEKAMP.....	Leavenworth, Wash.
*B. F. BUSH.....	Continental Trust Bldg., Baltimore, Md.
*CHARLES SMITH.....	Continental Trust Bldg., Baltimore, Md.

*Changed from Annual to Life membership.

LOS ANGELES CONVENTION

September 26, 27, 28, 29 and 30, and October 1, 1910

Some time during the present month the Official Call for the Thirteenth Annual Convention will be issued, inviting the President, Governors of the States, Mining and Commercial organizations, et cetera, to appoint delegates, who will be entitled to seats in the convention and who may participate in its proceedings.

The delegate feature of the Annual Convention is one which has engendered some opposition during past sessions, many members being of the opinion that the privileges of the sessions should be limited to members of the organization, but as the sentiment favoring exclusion of delegates—(the term “delegate” here signifies those who are not members of the Mining Congress, but who are members of the Convention)—has not been strong enough to carry an amendment to the by-laws to this effect, the practice of appointing delegates will for the present be continued.

In the past, delegates have often contributed important discussions and papers to the annual session. They have, furthermore, preponderated in numbers. For instance, at the Goldfield meeting last September only eighteen per cent. of the actual membership of the Congress was in attendance,—about 212 members. More than 500 other delegates were present, the total attendance being a little less than 800.

It would be very gratifying to see a larger percentage of the membership of the Congress present at the Los Angeles meeting. The national convention is the supreme authority of the Mining Congress. In the formation of its policies, which are there outlined, its membership should have the preponderating influence. Mining men of the nation, and especially those who are members of this organization, should meditate meanwhile upon the importance,—yes, necessity,—of their being present at the next meeting. A determination to attend will probably be the outcome.

Railroad Rates.

Low transportation rates have been announced by all railroads. A few specimen round-trip rates are here given:

From St. Paul, Minneapolis, Chicago, etc., to Los Angeles, via Denver, Salt Lake, San Francisco or any regular route.....	\$63.50
From St. Louis, Memphis, Cairo, New Orleans, etc.....	57.50
From Fort Worth, Dallas, Houston, etc.....	50.00
From Cheyenne, Denver, Colorado Springs, Pueblo, etc.....	45.00
From El Paso, Texas.....	30.00
From Albuquerque, N. M.....	30.00
From Salt Lake City, Utah.....	40.00

These tickets will be on sale Sept. 1 to 7, and Sept. 24 to 30, all dates inclusive, and the return limit is Oct. 31st. A further application is now being made to the railroads to advance the last-named date of sale to Sept. 20th, so that these tickets may be

purchased at any time between Sept. 20th and 30th. It is always advisable to consult the local agent for information on such matters as routes, rates and dates of sale, etc.

Program.

The program committee consists of Secretary Callbreath of Denver; Dr. Wm. B. Phillips, University of Texas, Austin, Texas; and E. A. Montgomery, Sierra Madre Club, Los Angeles, Cal. Members are invited to address this committee in regard to matters relating to the program, discussions, papers and addresses, etc. The discussion of committee reports and like matters will be given first consideration in the make-up of the program.

Committee Reports.

All committees are urged to have complete reports available on the opening day of the session. With this purpose in view, a call will be issued for meetings of all committees, at Los Angeles, on Friday and Saturday preceding the convention,—Sept. 23 and 24. While some of the committees may not by that time have been able to complete their work, they are nevertheless urged to make a complete report of the work accomplished up to that time.

BUREAU OF MINES

Bill Is Signed by the President and Appropriations of Half a Million Authorized by Congress

On May 16th President Taft affixed his signature to the bill (H. R. 13915) establishing in the Department of the Interior a Bureau of Mines, and, on July 1, 1910, with appropriations amounting to about half a million dollars already authorized by Congress, will begin its career of investigating the methods of mining, improving the conditions under which mining operations are carried on, and of making inquiries and technologic investigations pertinent to the mining industries.

This is without doubt the most important piece of national legislation enacted for the benefit of the mining industry since the creation of the geological survey. That it will prove a great stimulus to mining in all its branches is the universal opinion ; that in a short time it will amply justify its creation does not admit of doubt. The expenditure under expert direction of even a half million dollars a year,—and greater appropriations in the future will undoubtedly be made—ought to pave the way for the solution of many problems and difficulties which at present are barriers of no mean importance to mineral production.

The enactment of this legislation was in response to a demand so wide as to cover almost the entire United States. By an effective campaign, in which the coal and iron interests of the East played an important part, nearly all opposition in the House and Senate was swept away, and the following bit of chronology indicates how the bill was pushed through Congress by its loyal and hard-working friends:

Dec. 10, 1909—Representative Huff of Pennsylvania, Chairman of the House Mines and Mining Committee, introduced H. R. 13915 as the Committee bill, being a consolidation of a dozen bills on the same subject.

Jan. 25, 1910—Bill is amended and passes the House.

Jan. 26—Referred to Senate Committee on Mines and Mining.

March 7—Reported out by Senate Committee with some amendments.

May 2—Amended and passed Senate.

May 3—House disagrees to Senate amendment and conference asked.
May 4—Senate insists upon amendments and agrees to conference.
May 9—Senate accepts report of Conference Committee.
May 10—House accepts Conference Committee report.
May 11—Bill signed by Speaker of the House.
May 12—Signed by the President of the Senate.
May 13—Presented to the President.
May 16—Bill signed by President Taft.
July 1—Bill goes into effect.

The Director of the Bureau of Mines, who, according to the terms of the bill, must be an experienced technical man, has not yet been selected. The two principal candidates are Dr. J. A. Holmes, Chief of the Technological Branch of the U. S. Geological Survey, and Edward W. Parker, Chief of the Division of Statistics of the Survey. One of these two will in all probability be selected.

The question of appropriations for the Bureau was the occasion of much debate in the House. The general appropriations bill carried a total of \$487,200, as follows:—

For the general expenses of the Bureau of Mines, including the pay of the Director and necessary assistance, clerks, and other employes in the office at Washington, D. C., and in the field, and for every other expense requisite for and incident to the general work of the Bureau of Mines in Washington, D. C., and in the field, to be expended under the direction and at the discretion of the Secretary of the Interior, \$54,000.

For dismantling and removing chemical laboratories, equipment, and office furniture from the office of the Geological Survey to the office of the Bureau of Mines in Washington, D. C., and reinstalling and equipping the laboratories in the office of the Bureau of Mines with fixtures, including laboratory plumbing, sinks, hoods, coal sampling and crushing machinery, etc., \$14,700.

For rent of offices in the city of Washington, and for furnishing the same, together with such books, records, stationery and appliances as the Secretary of the Interior may provide, \$10,000.

For the analyzing, testing, and treatment of coals, lignites, ores, and other mineral fuel substances, \$100,000.

For the investigation as to the causes of mine explosions, methods of mining, especially in relation to the safety of miners, the appliances best adapted to prevent accidents, the possible improvement of conditions under which mining operations are carried on, the use of explosives and electricity, the prevention of accidents, and other inquiries and technologic investigations pertinent to the mining industry, \$310,000, of which \$160,000 thereof shall be used for the establishment and maintenance of mine rescue stations.

For salaries of two mine inspectors, authorized by the act approved March 3, 1891, for the protection of the lives of miners in the Territories, at \$2,000 per annum each, \$4,000; and said inspectors are hereby authorized to inspect coal and other mines in the District of Alaska, to which District the provisions of said act are hereby extended and made applicable;

For per diem, subject to such rules and regulations as the Secretary of the Interior may prescribe, in lieu of subsistence at a rate not exceeding \$3 per day each while absent from their homes on duty, except Alaska, when such allowance shall be at the rate of \$5 per day, and for actual necessary traveling expenses of said inspectors, including necessary sleeping-car fares, \$4,500.

The House finally agreed upon a total of \$487,200 to support the work of the Bureau for the year ending June 30, 1911, leaving out of the appropriations for the present the item of cost of printing and distributing the reports and investigations of the Bureau. The work of investigating and testing structural materials was taken from the jurisdiction of the Bureau of Mines and placed within the Bureau of Standards.

The appropriations for the Bureau encountered greater opposition in the House than did the bill which created it. The opponents, led by Tawney of Minnesota, contested every item, and it was only after hard fighting every inch of the way that the friends of the Bureau of Mines, who were working for the appropriations, secured the above appropriations.

The opponents of the Bureau succeeded in defeating the appropriation for the testing of structural materials under the Bureau of Mines and in transferring this work to the Bureau of Standards.

The friends of the Bureau deem it to be of the greatest importance that this work should be done under the direction of the Bureau of Mines, and Senator Dick has led a successful effort in the Senate to have the appropriation for this work reinstated in the Sundry Civil Appropriation Bill.

The amendment which was adopted by the Senate is as follows:

"For the continuation of the investigation of the structural materials both belonging to and for the use of the United States, such as stone, clays, cement, etc., under the supervision of the Director of the Bureau of Mines, including necessary personal expenses, \$100,000."

The result of this amendment will be to send the bill to a conference committee, where the question will be fairly considered, and it is more than likely that the decision of the conference committee will be final.

On another page of this Bulletin will be found a copy of brief used by your Secretary in an endeavor to have this work done under the direction of the Bureau of Mines, as provided in the bill creating the Bureau. Whether this effort shall succeed or not, the way has been cleared and a good start made; the rapid growth of this Bureau is inevitable, and it will yet become to the mining industry what the Agricultural Department is to agriculture.

Text of the Bill.

Following is an authentic copy of the Bureau of Mines Bill which was signed by President Taft on May 16th:

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled:—

That there is hereby established in the Department of the Interior a Bureau, to be called the Bureau of Mines, and a Director of said Bureau, who shall be thoroughly equipped for the duties of said office by technical education and experience and who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall receive a salary of \$6,000 per annum; and there shall also be in the said Bureau such experts and other employes as may from time to time be authorized by Congress.

Section 2. That it shall be the province and duty of said Bureau and its Director under the direction of the Secretary of the Interior to make diligent investigation of the methods of mining, especially in relation to the safety of miners, and the appliances best adapted to prevent accidents, the possible improvement of conditions under which mining operations are carried on, the treatment of ores and other mineral substances, the use of explosives and electricity, the prevention of accidents, and other inquiries and technologic investigations pertinent to said industries, and from time to time make such public reports of the work, investigations, and information obtained as the Secretary of said Department may direct, with the recommendations of such Bureau.

Section 3. That the Secretary of the Interior shall provide the said Bureau with furnished offices in the city of Washington, with such books, records, stationery and appliances, and such assistants, clerks, stenographers, typewriters, and other employes as may be necessary for the proper discharge of the duties imposed by this act upon such Bureau, fixing the compensation of such clerks and employes within appropriations made for that purpose.

Section 4. That the Secretary of the Interior is hereby authorized to transfer to the Bureau of Mines from the United States Geological Survey the supervision of the investigations of structural materials, the analyzing and testing of coals, lignites, and other mineral fuel substances and the investigation as to the causes of mine explosions; and the appropriations made for such investigations may be expended under the supervision of the Director of the Bureau of Mines in manner as if the same were so directed in the appropriation acts; and such investigations shall hereafter be within the province of the Bureau of Mines, and shall cease and determine under the organization of the United States Geological Survey; and such experts, employes, property and equipment as are now employed or used by the Geological Survey in connection with the subjects herewith transferred to the Bureau of Mines are directed to be transferred to said Bureau.

Section 5. That nothing in this act shall be construed as in any way granting to any officer or employe of the Bureau of Mines any right or authority in connection with the inspection or supervision of mines or metallurgical plants in any state.

Section 6. This act shall take effect and be in force on and after the first day of July, 1910.

Reasons Why Structural Materials Investigations Should Be Under Supervision of Bureau of Mines.

The act creating the Bureau of Mines fixes as its "province and duty" the "diligent investigation of the methods of mining * * * the prevention of accidents, and other inquiries and technologic investigations pertinent to said industries."

As further defining the province of this Bureau, there are transferred to it the supervision of "the investigations of structural materials," "the analyzing and testing of coals, etc.," and "the investigation as to the causes of mine explosions," as now conducted under the Geological Survey.

The Sundry Civil Bill as reported to the House provides appro-

priations to the amount of the estimate of the Secretary of the Interior "for the analyzing and testing of the coals, etc., one hundred thousand dollars;" "for the investigations as to the causes of mine explosions, one hundred and fifty thousand dollars." The estimate of the Secretary of the Interior "for continuing the investigation of the structural materials, etc., under the supervision of the Director of the United States Geological Survey, one hundred and fifteen thousand dollars," has been reduced to fifty thousand dollars, and this item, not estimated for by the Department of Commerce and Labor, is recommended to be appropriated to the Bureau of Standards in that Department.

It is of vital importance that all those investigations and tests enumerated in the enabling act creating the Bureau of Mines as being within "its province and duty" should be appropriated for to that Bureau, and not to some other Bureau of the Executive Department, if that duplication of work and economy in expenditure is to be secured which the President has urged and the Committee on Appropriations and Congress seek.

The quarry products which enter into the structural materials of the United States have now a yearly value of about \$300,000,000, distributed through practically every State in the Union. The working of quarries and quarry products now employs more than 300,000 men. The loss of life in the quarries is as great as that in many of the mines, largely for the reason that in the most important quarrying States there is no State mining supervision of these industries.

The same mining engineers in the Bureau of Mines who will investigate "the methods of mining, especially in relation to the safety of miners, and the appliances best adapted to prevent accidents, the possible improvement of conditions under which the mining operations are carried on, the treatment of ores and other mineral substances," will investigate the methods of quarrying structural materials and the treatment of the quarried products relative to their preparation for market, and the utilization of the products of the quarry in building and engineering constructions. These same mining engineers will, because they are the persons best qualified, examine the explosives, cables, derricks, pumping appliances and other equipment used in quarrying, and for these reasons they are the persons who are best qualified to define and direct the character of the investigations and tests best suited to improve the quality of the resulting structural materials, and to indicate the best methods for their preparation for use in structural arts.

For the above reasons, and for many others, it is evident that

any investigation of the structural materials to be conducted under the Bureau of Standards as a result of this transfer of appropriations made in the Sundry Civil Bill, will be a duplication of similar investigations and tests directed to be made in the Bureau of Mines, and which can be made in the latter Bureau at least expense and by those best qualified, because they will be by the same force and appliances which will be used in investigating the products of the coal mines and the metal mines of the United States.

The item of \$115,000 estimated for investigations of structural materials in the Geological Survey, which item the Bureau of Mines act transfers to the latter Bureau, should, as in previous years, be appropriated to the Geological Survey, and not be transferred to another Bureau under another Department of the Government.

That the Bureau of Standards is not now equipped in personnel or appliances for conducting this class of tests is evidenced by the fact that the six volumes of reports published since its organization in 1904 treat exclusively of subjects bearing on abstract scientific research problems in electrical, photometric and pyrometric units and measurements, atomic weight investigations, and in general investigations relating to chemical and physical constants of nature, and not to investigations or tests of the products of the quarries or mines, or of the largest structural materials which are assembled therefrom and fabricated into building and engineering works. Moreover, the Director of that Bureau in selecting the site on which its buildings are now erected, urged that they be located where they are, far removed from railroads, so that the delicate operations and investigations requiring extreme accuracy could not be influenced by the vibrations of the earth. This site is difficult of access and one in which it is almost impossible to get heavy materials for testing, being two miles from one railroad and three miles from others. (Director Stratton, hearing Sundry Civil Bill, 1910—p. 917.)

On the other hand, the publications of the Technologic Branch of the Geological Survey, which the Bureau of Mines act transfers to the latter Bureau, treat exclusively of investigations and tests of granites, slate, limestone, sandstone, and other building-stones; of the occurrence, and methods of quarrying these and preparing them for market; the use of the spalls and refuse as material for incorporation in concrete; the occurrence, preparation and sizing of sand and gravel for use in concrete construction; the occurrence and preparation of the materials used in making cement, and the testing and use of cement alone or in mortars or concrete, and with reinforcing metal, with reference to its resistance to the destructive agencies of salt-water in river and harbor works or fortifications, and

in the public buildings of the Supervising Architect and of the Reclamation Service, where it is subjected to the disintegrating action of alkaline water or soils, of the weather, etc. They relate to the occurrence and use of clay as to its suitability for burning the cheaper common brick and tile, or its adaptability for use in the higher grades of pressed brick and terra cotta. They relate to the heat-resisting qualities of the various building stones, clay and cement products, and their resistance to destructive action of fires and conflagrations, showing which of these fire-resistant materials are most locally and economically available in different portions of the United States, and therefore most economic in the building construction of the Government in those localities. Moreover, the grounds and buildings in which the structural materials investigations of the Geological Survey are housed in Pittsburg are located in the center of the greatest industrial region in the world. They are accessible to two lines of railroads, and one line runs past the buildings, and has sidings entering the grounds. They are situated where the various test pieces can be best fabricated, assembled and handled, and where shops and machinery are accessible for repair of the testing plant, and where skilled engineers and laborers are available in any quantity to assist in special tests or with whom to advise and consult regarding intricate engineering problems.

That the testing plant of the Watertown arsenal of the Ordnance Department of the army is in no way concerned in these tests of structural materials, and, in fact, considers that they may be best conducted in the technologic branch of the Geological Survey, is evidenced by the fact that the chief of ordnance has constructed this act to direct "the discontinuance of any testing other than that for the Ordnance Department" at the Watertown arsenal, and has referred to the Geological Survey the completion of certain engineering tests on specimens of cement, concrete, reinforced concrete and brick.

That the structural materials division of the Geological Survey is better equipped in personnel and appliances for conducting these tests than is the Bureau of Standards is the evident judgment of the chiefs of the various bureaus of the government concerned in such investigations, as shown by the fact that the supervising architect of the Treasury Department, having in charge the designing, construction and repair of about \$200,000,000 worth of public buildings; the engineering officers of the Isthmian canal commission charged with the testing of millions of dollars' worth of structural materials; the Quartermaster's Department of the army; the corps of engineers of the army having in charge millions of dollars of

expenditure in structural materials for river and harbor works; the Bureau of Yards and Docks of the Navy Department, charged with the construction and erection of dry docks and similar works, and the Reclamation Service of the Interior Department, have all adopted the practice of submitting to the Geological Survey investigative problems relative to structural materials and the engineering tests required thereon.

Finally, the Bureau of Standards has no equipment in the way of instruments or testing machines suited to the investigation or testing of structural materials, other than a large testing machine authorized in the sundry civil bill at the last session of Congress. The instruments and appliances of that bureau are adapted exclusively to delicate physical and chemical tests. That bureau has an important task (sufficient to absorb its energies), which it fills, in the continuation of these investigations of the chemical and physical properties of materials and their constants and standards. For example, it has recently prepared standard specimens of metals and alloys of known chemical composition and physical structure which it furnishes at cost to metallurgists and engineers for comparison as standards with their methods of chemical and physical investigation.

While these are proper functions of that bureau, and may be best continued there, they are not at all of the type proposed in the Bureau of Mines, and heretofore conducted in the Geological Survey, which relate to the mining and extraction of structural materials and their fabrication and commercial use in engineering construction. The Geological Survey, on the other hand, has acquired a skilled engineering personnel and great testing machines, concrete mixers, clay-grinding machinery and kilns for burning brick and tile; furnaces for testing the resistance of these materials to heat and fire, and other apparatus of a kind related to this type of investigations, and upon which an expenditure approximating \$100,000 has already been made.

For the various reasons above set forth it is evident that the appropriation for testing structural materials should be made in the sundry civil bill for the full amount of the estimate, \$115,000, and to the Geological Survey, in order that it may be transferred to the Bureau of Mines. And that there may be no duplication, and that there should be harmonious co-operation between these two important bureaus, each of which is charged in its enabling act with specific and well-defined functions, it is highly desirable that this appropriation for structural material tests and investigations be not transferred to the Bureau of Standards.